



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 9
 75 Hawthorne Street
 San Francisco, CA 94105-3901

September 21, 2002

Catherine Jerrard
 Program Manager/BEC
 AFCEC/CIBW
 706 Hangar Road
 Rome, New York 13441

Re: Review of the Draft Soil Vapor Extraction System and Enhanced Bioremediation Pilot Study, 2019 First and Second Quarter Performance Report, Former Liquid Fuels Storage Area, Site ST012, Former Williams Air Force Base, Mesa, Arizona, August 2020

Dear Ms. Jerrard:

EPA has reviewed the above referenced document and offers the following comments:

GENERAL COMMENTS

1. All of the tables included in Appendix B, SVE Field Monitoring Results, of the Draft Soil Vapor Extraction System and Enhanced Bioremediation Pilot Study, 2019 First and Second Quarter Performance Report, Former Liquid Fuels Storage Area, Site ST012, Former Williams Air Force Base, Mesa, Arizona, August 2020 (the Report) have the same title. As these tables present different information, they should not all be titled, "SVE System Monitoring Record." Please provide unique titles for each table in Appendix B that accurately identifies the information provided in each table.
2. It is unclear why this Report was submitted 14 months after the close of second quarter (2Q) 2019. Further, given the impending end of the current performance-based remediation (PBR) contract, it is unclear if the 2019 Annual Report and the 1Q/2Q Semiannual Report for 2020 will be submitted for Regulatory Agency review and comment such that these reports can be revised before the end of the PBR contract. Please explain why this report is late and submit the 2019 Annual Report and the 1Q/2Q Semiannual Report before the end of the PBR contract.

SPECIFIC COMMENTS

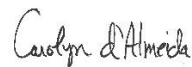
1. **Section 2.2.1.2, SVE Process Monitoring, Page 2-16 and Appendix B, SVE Field Monitoring Results:** Weekly data to support the average wellfield temperature during 2Q are missing from Appendix B. Specifically, the Appendix B table on page 13 of 54 has a footnote that implies that influent air temperatures were not recorded during 2Q. In addition, the Appendix B table on page 20 of 54 that reports wellfield air temperature does not include any data to support an average 2Q temperature of 94.5 degrees Fahrenheit (°F). Further, the average for first quarter (1Q) of 92.8 °F on the Appendix B table on page 20 of 54 does not match the average temperature (98.7 °F) reported in the text or on the Appendix B table on page 13 of 54. It is also unclear why the average influent air temperature is reported in the text for 1Q, but the wellfield air temperature is reported for 2Q. Please

resolve these discrepancies and revise the text to explain how the 2Q average temperature was generated and to provide the data used for this calculation.

2. **Section 3.1.2, Groundwater Extraction and Treatment Activities, Page 3-20 and Section 3.3.4.1, Wastewater Discharge Permit Compliance, Page 4-49:** Section 3.1.2 indicates that process wastewater samples were collected in accordance with the discharge permit and the work plan but the text in Sections 3.1.2 and 3.3.4.1 does not indicate if the results were below the discharge permit requirements. While the wastewater sampling data are provided in Table 3-2, ST012 Process Water Sample Analytical Results by Sample, please revise Sections 3.1.2 and 3.3.4.1 to clarify if the results were below the discharge permit requirements.
3. **Section 3.3.2, Mass Removal by Groundwater Extraction, Page 3-48:** It is unclear how the benzene and total petroleum hydrocarbon (TPH) mass removed by groundwater extraction was calculated. The text does not explain or reference how these calculations were done or refer to the data used for the calculations (e.g., analytical data, volume extracted per well and/or pumping rates, etc.). Please revise the text to specify how the benzene and TPH mass removal calculations were done and to reference the data used for these calculations.
4. **Appendix B, SVE Field Monitoring Results, SVE System Monitoring Record, Pages 7, 31-32, 33-34, and 35-36 of 54:** The SVE System Monitoring Record on page 7 terminates with an incomplete entry for December 13, 2018 and does not include any entries for the January to June 2019 reporting period. In addition, the tables on pages 31-32, 33-34, 35-36 of 54 appear to be incomplete. Please revise the Report to include the missing entries.
5. **Appendix B, SVE Field Monitoring Results, SVE System Monitoring Record, Pages 13, 15-17, 19-30 of 54:** It is unclear why the 1Q summary entry is in red font on page 13 and why the 1Q and 2Q summary entries on pages 15- 17 and 19- 30 of 54 are in red font. There are numerous tables where the 1Q and 2Q summaries are in red font. The significance of the red font should be defined in the table notes. Please revise the report to clarify why the 1Q and 2Q summary entries are in red font.

Please don't hesitate to contact me if you have any questions about these comments.

Sincerely,



Carolyn d'Almeida
Remedial Project Manager